

# AX-250-3D Counter UAS Radar



## 360° Dome Radar

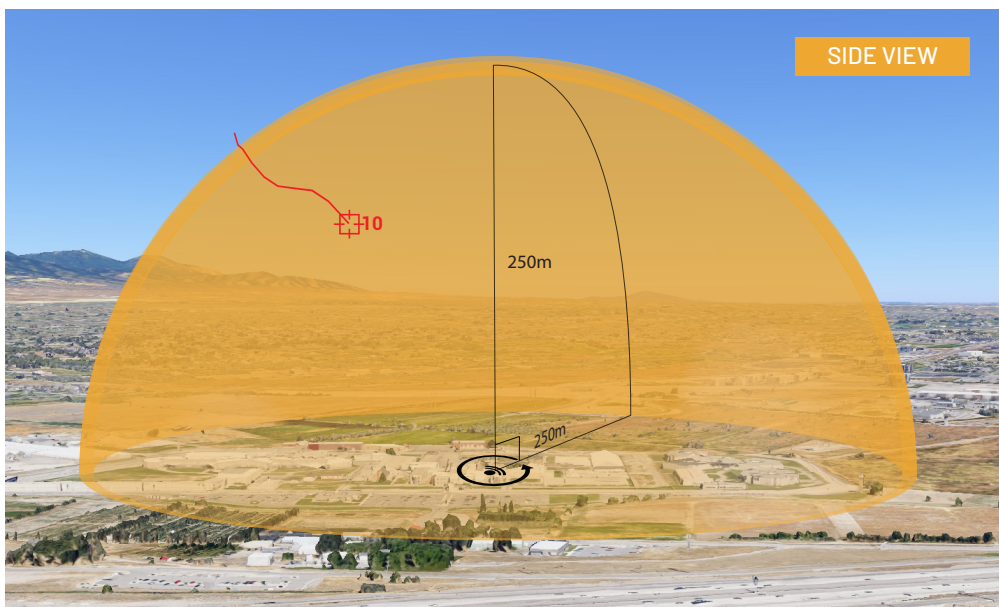
The AX-Series radar has the ability to measure latitude, longitude, and altitude of all aerial targets in a 500m wide hemisphere dome, with 250m of coverage directly above the radar. Rapid threat assessment is simple with automatic detection and 3 dimensional tracking of UAS combined with fully automated camera queuing on the target. This system reduces both manpower and cost of securing a sight by utilizing active camera tracking and verification of threats while reducing nuisance alarms.

The radar creates full dome UAS detection from 0 to 90° vertically and 360° horizontally with a single radar that weighs 12 pounds.

- Detect and track UAS in 3-dimensions
- Distinguish between birds and drones using AI classification and filters
- Deploy and operate easily, even in urban environments
- Own your airspace with a full-hemisphere geofence
- Small form factor makes it ideal for temporary and covert operations



TOP VIEW



SIDE VIEW

# PREVENTING HARM

## AX-250-3D Specifications

<b>RADAR</b>		TRACK UPDATE RATE	0.667 Hz
RADAR TYPE	FMCW (Frequency Modulated Continuous wave) Doppler Radar	TARGET MEASUREMENT CAPABILITY	Latitude, Longitude, Altitude
OUTPUT PROTOCOL	JSON, XML, KML	SETUP TIME	Less than 10 minutes using Web UI
INTERFACE	Ethernet (Web UI or API)	OBJECT CLASSIFICATION	Aerial target, Animal, bird, boat, immobile, person, vehicle
PHYSICAL INTERFACE	Passive PoE through IP67 RJ45 connector, 10/100 Mbps RJ45 connector, 10/100 Mbps	<b>NETWORK</b>	
OUTPUT DATA	Range, Accuracy, Speed, Total Distance, Displacement, Duration, Radar Cross Section, Geolocation, MGRS Coordinates, Estimated Altitude, Approach Rate, Change in Altitude, Heading, AI Primary and Secondary Classification	SECURITY	Password protection, HTTPS encryption, IEEE 802.1X (EAP-TLS) Network Access Control, User Access Log, Signed Firmware
FREQUENCY BANDS OF OPERATION	70MHz in the 10.0 to 10.5 GHz FCC Licensed Band	SUPPORTED PROTOCOLS	IPv4/IPv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS, SSL/TLS, SMTP, SNMP v1/v2/v3 (MIB-II), DNS/ DNSv6, NTP, RTSP, RTP, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SSH
RF TRANSMIT POWER	Max: 1 Watt Normal: <100 mW (EIRP) License free	COMMUNICATIONS	Ethernet, TCP/IP SpotterRF standard JSON Protocol, COT & KML
DETECTION RANGE: DRONE (RCS .01 M2)	250m Radius 500m Diameter	<b>GENERAL</b>	
COVERAGE AREA	Volume - 32724923.5 m <sup>3</sup>	CASING	IP66(mated and unmated) NEMA 6P compliant
EFFECTIVE FIELD OF VIEW	Full Dome Coverage Horizontal: 360° Vertical: 90°	POWER	Power Over Ethernet (PoE) IEEE 802.3at, Type 2 Class 4, 27-50 W @ 48 VDC
SIZE OF RADAR & MOUNT	27" x 12" x 12" 69 x 30 x 30 cm	OPERATIONAL CONDITIONS	-20° C to 55° C -4° F to 131° F
WEIGHT	12 lbs. (radar) 23 lbs. (Full Assembly) 5.4 KG (radar) 10.4 KG (Full Assembly)	GROUNDING	Provided
SCAN RATE	8 Hz	APPROVALS	CE, CLASS B(CE Residential Compliance), RED(EU Radio Equipment Directive Compliance), Unlicensed
ROTATION RATE	220° per second	ITAR CONTROLLED	No - Seek jurisdictional approval in the region product will be implemented within
RANGE RESOLUTION	2.17 m	COLOR OPTIONS	White (Standard) Black, Olive, Tan available upon request, at an additional cost
SIMULTANEOUS TRACKS	20	FIXED KIT	Radar System, Quickstart, 48VDC Power Supply & all required cables and hardware
VERTICAL/HORIZONTAL ANGULAR ACCURACY	±3° / ±3°	MOBILE KIT	Radar System, Quickstart, 48VDC Power Supply, Scope, All required Cables and hardware, tripod with Mount and Tie Downs, Custom Pelican Case



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